Alcatel-Lucent OmniAccess Instant™ Access Points 92/93/105

INSTANT™ VIRTUALIZATION OF WLAN SWITCH/CONTROLLER

Alcatel-Lucent OmniAccess Instant™ virtualizes Alcatel-Lucent OmniAccess WLAN Switch/Controller capabilities on 802.11n access points (AP), creating a feature-rich enterprise- grade wireless LAN (WLAN) that delivers the affordability and simplicity of an entry-level Wi-Fi network.

Offering impressive scalability, Alcatel-Lucent OmniAccess Instant can be installed at a single site or deployed across multiple geographically-dispersed locations. Up to 16 OmniAccess Instant APs can be controlled by a single AP that automatically becomes a primary Virtual WLAN Switch/Controller. In the event of primary Virtual Controller failure, another OmniAccess Instant AP automatically takes on the role with no disruption.

The Alcatel-Lucent OmniAccess Instant product family consists of three access points – the IAP105, IAP92 and the IAP93. The IAP105 features two 2x2 MIMO dual-band 2.4- and 5-GHz radios with two internal omni-directional antennas. The IAP92 features a single 2x2 MIMO dual-band 2.4- or 5-GHz radio with external antennas while the IAP93 offers the same features with internal antennas.

Virtual WLAN Switch/Controller Technology

The Virtual Controller technology in OmniAccess Instant delivers enterprise-grade capabilities such as AP auto discovery, 802.1X authentication, role- and device-based policy enforcement, rogue detection and Adaptive Radio Management (ARM), which optimizes Wi-Fi client behavior by making sure that APs stay clear of RF interference.

Ease of Deployment

OmniAccess Instant is up and running in minutes. From a laptop, simply connect wirelessly to an SSID to perform over-the- air provisioning in three easy steps. To expand, just install more OmniAccess Instant APs – configurations are automatically uploaded from the designated Virtual Controller.

Management and Visibility

Multiple OmniAccess Instant networks can be securely and centrally managed by OmniVista 3600 Air Manager, allowing OmniAccess Instant to operate hundreds of remote locations. With OV3600 Air Manager, IT has real-time visibility into users, mobile devices and OmniAccess WLANs from a single mgmt console.

Investment Protection

As WLAN requirements expand, OmniAccess Instant can be re-imaged as an 802.11n campus AP and migrate to a centralized WLAN Switch/Controller architecture that supports up to 2,048 APs. In addition to providing WLAN access, APs in a centralized, controller architecture can provide wireless intrusion protection and powerful spectrum analysis capabilities.

FEATURES	BENEFITS
Virtual WLAN Switch/Controller	Virtual WLAN Switch/Controller enables any IAP to be the controller removing the need to have a dedicated controller.
Auto-Selection of virtual WLAN Switch/Controller	Auto selection of WLAN Switch/Controller with redundancy enables ease of use with always on redundancy.
One-touch over the air provisioning, Auto-Discovery and Auto-configuration	One-touch over the air provisioning of first IAP, Auto-Discovery and Auto-configuration of new IAPs, eases deployment and expansion of existing network. Enables whole IAP network to be up in 5 minutes once the first IAP is configured.
Centralized Management of multiple instant networks	OV3600 Air Manager can centrally and securely manage Multiple OmniAccess Instant networks, to operate hundreds of remote locations with real-time visibility into users, mobile device and WLANs.
Re-Image Instant AP to campus AP	Re-Imaging of Instant AP to campus APs provides investment protection as same APs can used to meet new network expansion and requirements.

IAP Features

Application

- Cost-effective indoor 802.11n single or dual-radio, dual-band APs for medium to high- density deployments

Operating Mode

- 802.11a/b/g/n AP

Radios

- Software-configurable single/dual radio capable of supporting 2.4 GHz and 5 GHz

  Dual radio 802.11n capable (IAP105 only), implementing 2x2 MIMO with two spatial streams, providing up to 300 Mbps data rate per radio

RF Management

- Automatic transmit power and channel management control with auto coverage hole correction via Adaptive Radio Management (ARM)
- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n: Orthogonal frequency division multiplexing (OFDM)
  - 802.11n: 2x2 MIMO with 2 spatial streams
- Supported modulation types
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum transmit power:
  - 2.4GHz: 23 dBm (limited by local regulatory requirements)
  - 5 GHz: 23 dBm (limited by local regulatory requirements)
- Maximum ratio combining (MRC) for improved receiver performance
- Association rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 - MCS15 (6.5 Mbps - 300 Mbps)
- 802.11n high-throughput (HT) Support: HT 20/40
- 802.11n packet aggregation: A-MPDU, A-MSDU

Power

- 48 V DC 802.3af power over Ethernet
- 12 V DC for external AC supplied power (adapter sold separately)
- Maximum power consumption:
    - IAP92/93: 10 watts
    - IAP105: 12.5 watts

Antenna

- IAP92: dual, RP-SMA interfaces for external antenna support
- IAP93: integrated, omni-directional antenna elements (supporting up to 2x2 MIMO with spatial diversity)
    - 2.4 GHz/2.5 dBi
    - 5 GHz/5.8 dBi
- IAP105: 4 x integrated, omni-directional antenna elements (supporting up to 2x2 MIMO with spatial diversity). Maximum antenna gain:
    - 2.4 GHz/2.5 dBi
    - 5.150 GHz to 5.875 GHz/4.0 dBi

Interfaces

- Network:
    - 1 x 10/100/1000Base-T Ethernet (RJ45), auto-sensing link speed and MDI/MDX
- Power:
    - 1 x DC power connector
- Other:
    - 1 x RJ-45 console interface

Mounting

- Standard:
    - Wall
    - Tool-less ceiling tile rail (15/16")
- Mounting kit:
    - Solid wall mount bracket
    - Wall box mount bracket (fits standard US single gang wall boxes)
    - Ceiling tile rail adapters (15/16" & 9/16" recessed or non- recessed)

Advance Features

- Wireless intrusion detection
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys

Wireless Radio Specifications

- AP type: Single-radio / Dual-radio, dual-band 802.11n indoor
- Supported frequency bands (country-specific restrictions apply):
    - 2.400 to 2.4835 GHz
    - 5.150 to 5.250 GHz
    - 5.250 to 5.350 GHz
    - 5.470 to 5.725 GHz
    - 5.725 to 5.850 GHz
- Available channels: dependent upon configured regulatory domain

Mechanical

- Dimensions/weight (unit):
    - IAP92/93: 120 mm x 130 mm x 35 mm (4.7" x 5.1" x 1.4") 0.26 kg (9 oz)
    - IAP105: 132 mm x 135 mm x 45 mm (5.2" x 5.3" x 1.8") 0.30 kg (10.6 oz)
- Dimensions/weight (shipping):
    - IAP92/93: 180 mm x 155 mm x 45 mm (7.1" x 6.1" x 1.8") 0.37 kg (13.2 oz)
    - IAP105: 195 mm x 170 mm x 55 mm (7.7" x 6.7" x 2.2") 0.44 kg (15.5 oz)

Environmental

- Operating:
    - Temp: 0° C to 50° C (+32° F to +122° F)
    - Humidity: 5 to 95% non-condensing
- Storage and transportation temperature range:
    - Temp: -40° C to +70° C (-40° F to +158° F)

Regulatory

- FCC/Industry of Canada
- CE Marked
- R&TTE Directive 1995/5/EC 72/23/EEC
- Low Voltage Directive
- EN 300 328
- EN 301 489
- EN 301 893
- UL/IEC/EN 60950
- CB Scheme Safety, cTUVus

- Japan MIC/VCCI
- Korea KCC
- Brazil ANATEL
- Mexico NOM/COFETEL
- China SRRC/CCC

- UL2043 Compliant

Warranty

- Limited lifetime warranty

Certifications

- Wi-Fi certified 802.11a/b/g/n

Ordering Information

Part Number	Description
OAW-IAP92	OmniAccess IAP92 Wireless Access Point, 802.11abgn, dual-band, single radio, with external antenna connectors (RP-SMA)
OAW-IAP105	OmniAccess IAP93 Wireless Access Point, 802.11abgn, dual-band, single radio, integrated antennas
OAW-IAP105	OmniAccess IAP105 wireless access point. Dual radio IEEE 802.11a/b/g/n wireless access point with support for 802.11B/G/N and 802.11A/N operation, dual-band integral antenna, 1 x 10/100/1000Base-T (RJ-45) Ethernet Interface (Supports 802.3af Power over Ethernet), 1 x 12V DC power interface. AC power adapter kit (OAW-AP-AC-UN) sold separately
OAW-AP-AC-UN	OmniAccess AP92, AP93, AP105 Universal AC Power Adapter Kit - North America, Japan, United Kingdom, Italy, EC (Shuko), Australia, China, India, Korea.
OAW-AP90-MNT	OmniAccess AP90 Series Access Point Wall / Ceiling Mounting Kit
OAW-AP105-MNT	OmniAccess AP105 Wall/Ceiling Mounting Kit
OAW-AP105-MNTC	OmniAccess AP105 Ceiling Mounting Kit (rail adapters only)
OAW-MS-3501G	1 Port 802.3af PoE MS 10/100/1000 15.4W
AP-ANT-1B	2.4Ghz-5Ghz / 2.5-5.0 dBi Tri-Band, High Gain, Omni-Directional Detachable Antenna. RP-SMA. Indoor Use Only
AP-ANT-13	2.4-2.5Ghz (2.5dBi)/ 4.9-5.9GHz (3 dBi), Down-Tilt, Smallest Form Factor OmniDirectional Single Antenna w/ ceiling mount hardware. RP-SMA Connector
AP-ANT-19	Dual Band, Omnidirectional 3dBi/6dBi, Indoor/Outdoor, RPSMA connector with 36 inch integrated pigtail cable. Pole mount, I-beam, and ceiling tile mount hardware included.

www.alcatel-lucent.com Alcatel, Lucent, Alcatel-Lucent and the Alcatel-Lucent logo are trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice.© 2011 Alcatel-Lucent. All rights reserved.

	IAP-92 / IAP-93				IAP-105			
	Max TX power per active TX chain(dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain	RX Sensitivity (dBm)	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain	RX Sensitivity (dBm)
	2.4 GHz		5 GHz		2.4 GHz		5 GHz	
802.11b								
1Mbps	18	-96			20	-96		
2Mbps	18	-96			20	-96		
5.5Mbps	18	-94			20	-94		
11Mbps	18	-93			20	-93		
802.11a/g								
6Mbps	18	-93	18	-93	20	-96	20	-96
9Mbps	18	-93	18	-93	20	-96	20	-96
12Mbps	18	-87	18	-87	20	-96	20	-96
18Mbps	18	-87	18	-87	20	-95	20	-95
24Mbps	18	-85	18	-85	20	-92	20	-91
36Mbps	15	-82	15	-82	19	-89	19	-88
48Mbps	14	-80	14	-80	18	-85	18	-84
54Mbps	14	-80	14	-80	17	-83	17	-83
802.11n HT20								
MCS0	18	-93	18	-93	20	-96	20	-96
MCS1	17	-93	17	-93	20	-95	20	-94
MCS2	17	-87	17	-87	20	-93	20	-92
MCS3	16	-87	16	-87	20	-90	20	-89
MCS4	16	-83	16	-83	19	-87	19	-86
MCS5	15	-80	15	-80	18	-82	18	-82
MCS6	14	-77	14	-77	17	-81	17	-80
MCS7	13	-75	13	-75	15	-80	15	-79
MCS8	18	-93	18	-93	20	-95	20	-95
MCS9	17	-93	17	-93	20	-93	20	-92
MCS10	17	-87	17	-87	20	-91	20	-90
MCS11	16	-87	16	-87	20	-87	20	-87
MCS12	16	-83	16	-83	19	-84	19	-84
MCS13	15	-80	15	-80	18	-81	18	-80
MCS14	14	-77	14	-77	17	-80	17	-78
MCS15	13	-75	13	-75	15	-77	15	-77
802.11n HT40								
MCS0	18	-90	18	-90	20	-93	20	-92
MCS1	17	-90	17	-90	20	-93	20	-92
MCS2	17	-87	17	-87	20	-90	20	-89
MCS3	16	-84	16	-84	20	-86	20	-86
MCS4	16	-80	16	-80	19	-83	19	-83
MCS5	15	-77	15	-77	18	-79	18	-80
MCS6	14	-77	14	-77	17	-77	17	-77
MCS7	13	-73	13	-73	15	-76	15	-76
MCS8	18	-90	18	-90	20	-92	20	-92
MCS9	17	-90	17	-90	20	-89	20	-90
MCS10	17	-87	17	-87	20	-87	20	-87
MCS11	16	-84	16	-84	20	-84	20	-84
MCS12	16	-80	16	-80	19	-82	19	-81
MCS13	15	-77	15	-77	18	-76	18	-77
MCS14	14	-77	14	-77	17	-76	17	-75
MCS15	13	-73	13	-73	15	-73	15	-73